0 General Tools

Cancel a computation

Some computations may take a long time. For example, say you want to plot the function

$$\int_0^x \sqrt{t-3}dt.$$

If you input it by pressing stat plot f1 y= (see 5.5.1) and press the table f5 graph button to plot the function, it will take a very long time to load, and you will not be able to switch to another screen (for example if you want to change the window) directly.

If you want to cancel the computation (shown with a ▪ at the top right of the calculator), simply press 2nd and off on, as if you where turning off the calculator (the ▪ symbol should disappear).

You will regain access to your calculator so you can exit the graph.

Speed up the plot of a function

Suppose you want to solve the equation

$$3 = \int_0^x \sqrt{t-3}dt.$$

Plotting the function $\int_0^x \sqrt{t-3}dt$ directly will be very time consuming. If you want to speed up the computation, press tblset f2 window and change `Xres=1` to `Xres=8`[1]

Shortcuts

Tools involving fractions can be found by pressing A-lock alpha and stat plot f1 y= .

Useful functions can be found by pressing A-lock alpha and tblset f2 window .

Matrices can be constructed fast by pressing A-lock alpha and format f3 zoom .

Functions you created can be called by pressing A-lock alpha and calc f4 trace .

Solve quickly an equation

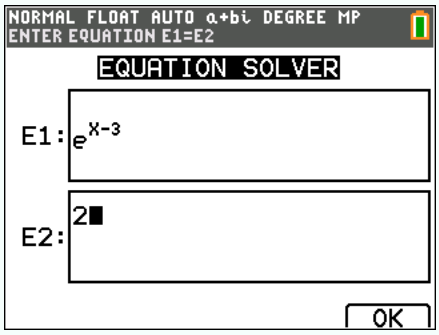
[1] `Xres` is an integer n from 1 to 8 that will tell the calculator to draw the graph every n pixels.

The following tool will only find **one** solution for an equation. It might not give **all** the solutions. More precisely, the functions involved in the equation need to be bijections on their range (e.g. $exp(x)$, $ln(x)$, $mx+c, ...$). To find all the solutions to a polynomial equation, see 1.8.2 on page 24.

Suppose you want to find a quick numerical solution to the equation

$$e^{x-3} = 2.$$

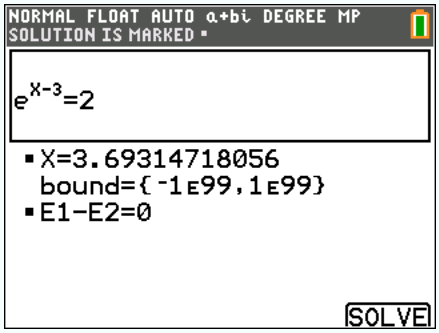
① Press test A **math**, ☼≜ (leading to `Numeric Solver`) and entry solve **enter**, and fill the parameters as follows:



press 2nd e M **÷** to get `e`,
and link **X,T,θ,n** to get `X`.

Press **OK** with the table f5 **graph** button.

② Press **SOLVE**. The following should display:



Thus, the answer is x =3.69 (rounded up to 3 significant figures).

1 Number and algebra